```
=> d 1-5 ti

L7   ANSWER 1 OF 5  AGRICOLA
TI   Production of recombinant proteins in tobacco guttation fluid.

L7   ANSWER 2 OF 5  AGRICOLA
TI   Genetic ablation of root cap cells in Arabidopsis.

L7   ANSWER 3 OF 5  AGRICOLA
TI   CUT1, an Arabidopsis gene required for cuticular wax biosynthesis and
     pollen fertility, encodes a very-long-chain fatty acid condensing enzyme.

L7   ANSWER 4 OF 5  AGRICOLA
TI   Use of plant roots for phytoremediation and molecular farming.

L7   ANSWER 5 OF 5  AGRICOLA
TI   Fungal pathogens secrete an inhibitor protein that distinguishes
     isoforms of plant pathogenesis-related endo-beta-1,3-glucanases.


=> d so

L7   ANSWER 1 OF 5  AGRICOLA
SO   Plant physiology, Nov 2000. Vol. 124, No. 3. p. 927-933
     Publisher: Rockville, MD : American Society of Plant Physiologists, 1926-
     CODEN: PLPHAY; ISSN: 0032-0889


=> logoff y
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       9.42       9.63

STN INTERNATIONAL LOGOFF AT 15:34:52 ON 27 DEC 2002


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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1          Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2  Apr 08  "Ask CAS" for self-help around the clock
 NEWS  3  Apr 09  BEILSTEIN: Reload and Implementation of a New Subject Area
 NEWS  4  Apr 09  ZDB will be removed from STN
 NEWS  5  Apr 19  US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
 NEWS  6  Apr 22  Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
 NEWS  7  Apr 22  BIOSIS Gene Names now available in TOXCENTER
 NEWS  8  Apr 22  Federal Research in Progress (FEDRIP) now available
 NEWS  9  Jun 03  New e-mail delivery for search results now available
 NEWS 10  Jun 10  MEDLINE Reload
 NEWS 11  Jun 10  PCTFULL has been reloaded
 NEWS 12  Jul 02  FOREGE no longer contains STANDARDS file segment
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NEWS 13  Jul 22  USAN to be reloaded July 28, 2002;
                 saved answer sets no longer valid
NEWS 14  Jul 29  Enhanced polymer searching in REGISTRY
NEWS 15  Jul 30  NETFIRST to be removed from STN
NEWS 16  Aug 08  CANCERLIT reload
NEWS 17  Aug 08  PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18  Aug 08  NTIS has been reloaded and enhanced
NEWS 19  Aug 19  Aquatic Toxicity Information Retrieval (AQUIRE)
                 now available on STN
NEWS 20  Aug 19  IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21  Aug 19  The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22  Aug 26  Sequence searching in REGISTRY enhanced
NEWS 23  Sep 03  JAPIO has been reloaded and enhanced
NEWS 24  Sep 16  Experimental properties added to the REGISTRY file
NEWS 25  Sep 16  Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 26  Sep 16  CA Section Thesaurus available in CAPLUS and CA
NEWS 27  Oct 01  CASREACT Enriched with Reactions from 1907 to 1985
NEWS 28  Oct 21  EVENTLINE has been reloaded
NEWS 29  Oct 24  BEILSTEIN adds new search fields
NEWS 30  Oct 24  Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 31  Oct 25  MEDLINE SDI run of October 8, 2002
NEWS 32  Nov 18  DKILIT has been renamed APOLLIT
NEWS 33  Nov 25  More calculated properties added to REGISTRY
NEWS 34  Dec 02  TIBKAT will be removed from STN
NEWS 35  Dec 04  CSA files on STN
NEWS 36  Dec 17  PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 37  Dec 17  TOXCENTER enhanced with additional content
NEWS 38  Dec 17  Adis Clinical Trials Insight now available on STN
NEWS 39  Dec 30  ISMEC no longer available

NEWS EXPRESS  October 14 CURRENT WINDOWS VERSION IS V6.01,
              CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
              AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
NEWS HOURS    STN Operating Hours Plus Help Desk Availability
NEWS INTER    General Internet Information
NEWS LOGIN    Welcome Banner and News Items
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  * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * *



FILE 'HOME' ENTERED AT 09:06:12 ON 30 DEC 2002

=> file agricola caplus biosis
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'AGRICOLA' ENTERED AT 09:06:59 ON 30 DEC 2002

FILE 'CAPLUS' ENTERED AT 09:06:59 ON 30 DEC 2002
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE 'BIOSIS' ENTERED AT 09:06:59 ON 30 DEC 2002
COPYRIGHT (C) 2002 BIOLOGICAL ABSTRACTS INC.(R)

=> s booster and agrobacter?
L1 5 BOOSTER AND AGROBACTER?

=> dup rem l2
L2 IS NOT VALID HERE
The L-number entered has not been defined in this session, or it has been deleted. To see the L-numbers currently defined in this session, enter DISPLAY HISTORY at an arrow prompt (=>).

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2 3 DUP REM L1 (2 DUPLICATES REMOVED)

=> d 1-3 ti

L2 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS
TI Methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens

L2 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS
TI Expression of cholera toxin B subunit in transgenic plants and efficacy thereof in oral vaccines

L2 ANSWER 3 OF 3 AGRICOLA DUPLICATE 1
TI Detection and enumeration of bacteria in soil by direct DNA extraction and polymerase chain reaction.

=> d ti

L2 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS
TI Methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens

=> d so

L2 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2

=> d pi

L2 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 9919497 | A1 | 19990422 | WO 1997-IL328 | 19971010 |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | AU 9745703 | A1 | 19990503 | AU 1997-45703 | 19971010 |
| | CA 2312008 | AA | 19990422 | CA 1998-2312008 | 19981008 |
| | WO 9919498 | A1 | 19990422 | WO 1998-IL487 | 19981008 |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, | | | | |

DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9894572 A1 19990503 AU 1998-94572 19981008
EP 1021552 A1 20000726 EP 1998-947760 19981008
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO

=> d 2 ab

L2 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS
AB It is an object of the invention to provide immunomodulatory transmucosal carrier mols., such as cholera toxin B subunit protein (CTB), in food plants in order to improve the efficacy of microbial antigens expressed in said plants. It is desired to express CTB in plant tissues and to assess the efficacy of such plant material as an edible vaccine, either against cholera itself or as a carrier for another microbial antigen. A plant expression vector is provided that has the CTB gene fused to an endoplasmic reticulum retention signal (SEKDEL) adjacent to the mannopine synthase P2 promoter and has a bacterial luciferase reporter gene (lux F) linked to a P1 promoter. Mice orally immunized with transgenic potato showed induction of both serum and intestinal CTB-specific antibodies, and although mucosal antibody titers declined gradually after the last immunization, they were restored following an oral **booster** of said potato.

=> s booster and (transgenic or transform or transformation)
L3 100 BOOSTER AND (TRANSGENIC OR TRANSFORM OR TRANSFORMATION)

=> s l3 and plant?
L4 25 L3 AND PLANT?

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5 19 DUP REM L4 (6 DUPLICATES REMOVED)

=> d 1-10 ti

L5 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
TI Expression in **plants** and immunogenicity of **plant** virus-based experimental rabies vaccine

L5 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2002 ACS
TI Method for enhancing **plant** resistance to pathogens using **booster** sequence from potyvirus which encodes P1/HC-Pro polyprotein

L5 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2002 ACS
TI Targeted removal of attP-flanked selectable marker gene from a **transgenic plant** by inducing intrachromosomal homologous recombination

L5 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2002 ACS
TI Oral immunology using **plant** product containing a non-enteric pathogen antigen

L5 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2002 ACS
TI Oral immunology using **plant** product containing hepatitis surface antigen

L5 ANSWER 6 OF 19 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Optimised method for the treatment and energetic upgrading of urban and industrial sludge purifying **plants**.

L5 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2002 ACS
TI Methods for the genetic **transformation** of Lemnaceae with Agrobacterium tumefaciens

L5 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2002 ACS
TI Expression of cholera toxin B subunit in **transgenic plants** and efficacy thereof in oral vaccines

L5 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2002 ACS
TI Potyvirus **booster** sequence and helper component proteinase for enhancing expression of a foreign or endogenous gene product in **plants**

L5 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 2
TI Efficacy of a food **plant**-based oral cholera toxin B subunit vaccine

=> d 11-19 ti

L5 ANSWER 11 OF 19 AGRICOLA DUPLICATE 3
TI The **transformation booster** sequence from Petunia hybrida is a retrotransposon derivative that binds to the nuclear scaffold.

L5 ANSWER 12 OF 19 AGRICOLA DUPLICATE 4
TI Molecular analysis of **transgenic plants** generated by microprojectile bombardment: effect of petunia **transformation booster** sequence.

L5 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2002 ACS
TI Comparison of homologous recombination frequencies in somatic cells of petunia and tobacco suggest two distinct recombination pathways

L5 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2002 ACS
TI Molecular analysis of **transgenic plants** derived from transformations of protoplasts at various stages of the cell cycle

L5 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2002 ACS
TI Utilization of C4's and C5's of ethylene **plants** and FCC units through **transformation** to octane boosters for unleaded gasoline

L5 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2002 ACS
TI A genomic DNA segment from Petunia hybrida leads to increased **transformation** frequencies and simple integration patterns

L5 ANSWER 17 OF 19 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI CELLULAR AND HUMORAL IMMUNITY IN PARKINSONISM.

L5 ANSWER 18 OF 19 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI THE ROLE OF MEMBRANE ASSOCIATION OF ANTIGENS IN INDUCTION OF CELL MEDIATED IMMUNITY TO VIRUSES.

L5 ANSWER 19 OF 19 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI IMMUNOLOGIC STUDIES IN PHENYL KETONURIA.

=> logoff y
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION

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FULL ESTIMATED COST                                    21.08      21.29

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)       SINCE FILE      TOTAL
                                                      ENTRY    SESSION
CA SUBSCRIBER PRICE                                   -0.62      -0.62

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 NEWS  7  Apr 22  BIOSIS Gene Names now available in TOXCENTER
 NEWS  8  Apr 22  Federal Research in Progress (FEDRIP) now available
 NEWS  9  Jun 03  New e-mail delivery for search results now available
 NEWS 10  Jun 10  MEDLINE Reload
 NEWS 11  Jun 10  PCTFULL has been reloaded
 NEWS 12  Jul 02  FOREGE no longer contains STANDARDS file segment
 NEWS 13  Jul 22  USAN to be reloaded July 28, 2002;
                  saved answer sets no longer valid
 NEWS 14  Jul 29  Enhanced polymer searching in REGISTRY
 NEWS 15  Jul 30  NETFIRST to be removed from STN
 NEWS 16  Aug 08  CANCERLIT reload
 NEWS 17  Aug 08  PHARMAMarketLetter(PHARMAML) - new on STN
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                  now available on STN
 NEWS 20  Aug 19  IFIPAT, IFICDB, and IFIUDB have been reloaded
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 NEWS 23  Sep 03  JAPIO has been reloaded and enhanced
 NEWS 24  Sep 16  Experimental properties added to the REGISTRY file
 NEWS 25  Sep 16  Indexing added to some pre-1967 records in CA/CAPLUS
 NEWS 26  Sep 16  CA Section Thesaurus available in CAPLUS and CA
 NEWS 27  Oct 01  CASREACT Enriched with Reactions from 1907 to 1985
 NEWS 28  Oct 21  EVENTLINE has been reloaded
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 NEWS 31  Oct 25  MEDLINE SDI run of October 8, 2002
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 NEWS 34  Dec 02  TIBKAT will be removed from STN
 NEWS 35  Dec 04  CSA files on STN
 NEWS 36  Dec 17  PCTFULL now covers WP/PCT Applications from 1978 to date
 NEWS 37  Dec 17  TOXCENTER enhanced with additional content
 NEWS 38  Dec 17  Adis Clinical Trials Insight now available on STN
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 NEWS 39  Dec 30  ISMEC no longer available

 NEWS EXPRESS  October 14 CURRENT WINDOWS VERSION IS V6.01,
               CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
               AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
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 NEWS INTER    General Internet Information
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 NEWS WWW      CAS World Wide Web Site (general information)

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=> s feeder layer and agrobacter?
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Some commands only work in certain files.  For example, the EXPAND
command can only be used to look at the index in a file which has an
index.  Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of
commands which can be used in this file.

=> file agricola caplus biosis
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                   0.21       0.21

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=> s feeder layer and agrobacter?
L1            7 FEEDER LAYER AND AGROBACTER?

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2            5 DUP REM L1 (2 DUPLICATES REMOVED)

=> d 1-5 ti

L2   ANSWER 1 OF 5  AGRICOLA                          DUPLICATE 1
TI   Factors affecting Agrobacterium tumefaciens-mediated
     transformation of peppermint.

L2   ANSWER 2 OF 5  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI   Factors affecting Agrobacterium tumefaciens-mediated
     transformation of peppermint.
```

L2 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 2
TI Factors influencing **Agrobacterium** tumefaciens mediated transformation and expression of kanamycin resistance in pickling cucumber

L2 ANSWER 4 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI GENETIC TRANSFORMATION OF POTATO SOLANUM-TUBEROSUM AN EFFICIENT METHOD TO OBTAIN TRANSGENIC PLANTS.

L2 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS
TI Genetic transformation of potato (Solanum tuberosum): an efficient method to obtain transgenic plants

=> d 5 so

L2 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS
SO Plant Science (Shannon, Ireland) (1988), 59(2), 175-81
CODEN: PLSCE4; ISSN: 0168-9452

=> d 5 ab

L2 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS
AB A quick procedure for efficient transformation of potato (cv. Desiree) is reported. Leaf disks were inoculated with **Agrobacterium** tumefaciens harboring a Ti plasmid-derived binary vector. Transformed shoots carrying the neomycin phosphotransferase gene were regenerating within 4 wk using a **feeder layer** technique on selective medium contg. kanamycin. Numerous transgenic plants appeared phenotypically normal and expressed the NPT II gene. Apparently, culture conditions are fundamental to maximize transformation efficiency.

=> s tomato and feeder
L3 27 TOMATO AND FEEDER

=> s l3 and agrobacter?
L4 12 L3 AND AGROBACTER?

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5 6 DUP REM L4 (6 DUPLICATES REMOVED)

=> d 1-6 ti

L5 ANSWER 1 OF 6 AGRICOLA
TI **Agrobacterium**-mediated transformation of citrange: factors affecting transformation and regeneration.

L5 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
TI Transformation and foreign gene expression with plant species

L5 ANSWER 3 OF 6 AGRICOLA DUPLICATE 2
TI Re-evaluation of conditions for plant regeneration and **Agrobacterium**-mediated transformation from **tomato** (Lycopersicon esculentum).

L5 ANSWER 4 OF 6 AGRICOLA DUPLICATE 3
TI Factors influencing transformation frequency of **tomato** (Lycopersicon esculentum).

L5 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS
TI Method and plasmid for high-efficiency transformation of and foreign gene expression in plants

L5 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 4
TI **Agrobacterium**-transformed **tomato** cells replace the hormone requirement for growth of **tomato** leaf protoplasts

=> d 5 ab

L5 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS
AB Method and plasmid for high-efficiency transformation of plant cells are provided. Plasmid pPMG 85 was constructed contg. the aroA gene fused to mannopine synthase gene promoter and tml terminator, pRiA4T-derived left border T-DNA, and kanamycin-resistance gene. The plasmid was transferred from its Escherichia coli host to **Agrobacterium** tumefaciens strain 2760-587/85 on MG/L broth in presence of a mobilization plasmid-contg. E. coli. The resultant A. tumefaciens was cocultivated with cotyledon sections obtained from sterile **tomato** seedlings in **feeder** plates for 48 h. The cotyledon sections were then transferred to regeneration medium contg. carbenicillin, kanamycin, zeatin, myo-inositol, sucrose, Nitsch vitamins, and agar. About 80% of the regenerated shoots rooted on medium contg. kanamycin 50 mg/mL, >90% of which produced aroA protein (as detd. by western blot anal.).

=> d 5 so

L5 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS
SO Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW

=> d 5 pi

L5 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | EP 249432 | A2 | 19871216 | EP 1987-305062 | 19870609 |
| | EP 249432 | A3 | 19900207 | | |
| | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | AU 8773351 | A1 | 19871217 | AU 1987-73351 | 19870525 |
| | JP 63068088 | A2 | 19880326 | JP 1987-142403 | 19870609 |
| | CN 87104202 | A | 19880309 | CN 1987-104202 | 19870610 |

=> d 4 ab

L5 ANSWER 4 OF 6 AGRICOLA DUPLICATE 3
AB We developed an efficient procedure for transformation and regeneration of L. esculentum cv. Moneymaker from cotyledon explants. The effect of two parameters on the transformation frequency was investigated in detail. The use of **feeder** layers during cocultivation proved to be critical. In addition, it was found that **Agrobacterium** strains harboring a L,L-succinamopine type helper plasmid yielded significantly higher transformation frequencies than those with octopine or nopaline type helper plasmids. The optimized protocol was used to obtain transformation frequencies averaging 9%. Of the plants produced approximately 80% proved to be diploid, of which 67% contained the transgene(s) on a single locus.

=> s duckweed or lemna or lemnaceae or spirodela or wolffiella
L6 7392 DUCKWEED OR LEMNA OR LEMNACEAE OR SPIRODELA OR WOLFFIELLA

=> s l6 and agrobacter?
L7 13 L6 AND AGROBACTER?

=> dup rem l7
PROCESSING COMPLETED FOR L7
L8 11 DUP REM L7 (2 DUPLICATES REMOVED)

=> d 1-11 ti

L8 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2002 ACS
TI Methods for functional analysis of **duckweed** nucleic acids by high throughput screening

L8 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2002 ACS
TI Immunoglobulin binding protein arrays in plant cells

L8 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
TI Genetic transformation of **duckweed Lemna** gibba and **Lemna** minor

L8 ANSWER 4 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI A transient transformation system for **duckweed** (Wolffia columbiana) using **Agrobacterium**-mediated gene transfer.

L8 ANSWER 5 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Genetically engineered **duckweed**.

L8 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2002 ACS
TI Methods for the genetic transformation of **Lemnaceae** with **Agrobacterium** tumefaciens

L8 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2002 ACS
TI Transformation of **duckweed** (**Lemna**) plants with ballistic bombardment, electroporation, or **Agrobacterium** vectors

L8 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2002 ACS
TI Simple (bench-top) bioassays and the isolation of new chemically diverse antitumor and pesticidal agents from higher plants

L8 ANSWER 9 OF 11 AGRICOLA DUPLICATE 2
TI Stable isotope techniques for the analysis of indole auxin metabolism in normal and mutant plants.

L8 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2002 ACS
TI Phytochrome regulation of transcription: biochemical and genetic approaches

L8 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2002 ACS
TI A blind comparison of simple bench-top bioassays and human tumor cell cytotoxicities as antitumor prescreens

=> d ab

L8 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2002 ACS
AB Methods for high-throughput screening in **duckweed** are disclosed. In one aspect, these methods are used to identify nucleotide sequences encoding polypeptides of interest. In another aspect, these methods are used to identify nucleotide sequences that modulate the expression of a target nucleotide sequence. The methods combine the predictive benefits of screening in whole plants with the speed and efficiency of a high throughput system.

=> d so

L8 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2002 ACS

SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2

=> d pi

L8 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2002 ACS

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2002097433 | A1 | 20021205 | WO 2002-US16938 | 20020530 |

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

=> d 3 so

L8 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
SO In Vitro Cellular & Developmental Biology: Plant (2001), 37(3), 349-353
CODEN: IVCPEO; ISSN: 1054-5476

=> d 3 ab

L8 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
AB The authors developed efficient genetic transformation protocols for two species of **duckweed**, **Lemna** gibba (G3) and **Lemna** minor (8627 and 8744), using **Agrobacterium** -mediated gene transfer. Partially differentiated nodules were co-cultivated with **Agrobacterium** tumefaciens harboring a binary vector contg. .beta.-glucuronidase and nptII expression cassettes. Transformed cells were selected and allowed to grow into nodules in the presence of kanamycin. Transgenic **duckweed** fronds were regenerated from selected nodules. The authors demonstrated that transgenic **duckweed** could be regenerated within 3 mo, after **Agrobacterium**-mediated transformation of nodules. Furthermore, the authors developed a method for transforming L. minor 8627 in 6 wk. These transformation protocols will facilitate genetic engineering of **duckweed**, ideal plants for bioremediation and large-scale industrial prodn. of biomass and recombinant proteins.

=> d 3 so

L8 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
SO In Vitro Cellular & Developmental Biology: Plant (2001), 37(3), 349-353
CODEN: IVCPEO; ISSN: 1054-5476

=> d 3 au

L8 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1
AU Yamamoto, Yuri T.; Rajbhandari, Nirmala; Lin, Xiaohong; Bergmann, Ben A.; Nishimura, Yufuko; Stomp, Anne-Marie

=> d 4 so

L8 ANSWER 4 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
SO Journal of Applied Botany, (August, 2001) Vol. 75, No. 3-4, pp. 107-111. print.
ISSN: 0949-5460.

=> d 4 ab

L8 ANSWER 4 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AB Since **duckweed** (**Lemnaceae** family) is a valuable target plant for various applications including waste water treatment and food purposes, the expression of homologous or heterologous proteins may offer an extended range of application. Therefore, the feasability of transformation of Wolffia columbiana (**Lemnaceae**) by **Agrobacterium** tumefaciens-mediated gene transfer has been elucidated. Several methods were tested to increase the accessibility of the plant cells for the infecting **Agrobacterium** tumefaciens strain LBA4404, harboring p35SGUSINT : corundum- and gold particle-treatment, vacuum infiltration and disintegration of the fronds. The resulting overall transformation efficiency was higher than without any treatment, reaching an average of 3.9% of all fronds showing GUS staining. Induction of **Agrobacterium**'s vir genes by media conditions as well as the presence of 0.6 M mannitol during infection resulted in a clear increase of transformation efficiency. Max. approx. 30 %, average 15-20 % of fronds showing GUS staining were obtained both with corundum-treated as well as with vacuum infiltrated fronds, but transformation pattern was different. Whereas in the former mainly epidermal and subepidermal cells were transformed, the latter showed, in addition, transformed inner frond cells, including the meristematic region. Disintegration of the fronds, followed by vacuum infiltration, led to whole GUS-stained areas of the frond fragments. The results as such and the observed transformation patterns will serve as a basis for offering good conditions either in the in vivo - or the in-vitro-regeneration of transgenic **duckweed** fronds.

=> d 4 au

L8 ANSWER 4 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AU Boehm, Robert; Kruse, Cordula; Voeste, Dirk; Barth, Stefan; Schnabl, Heide (1)

=> d 5 pi

L8 ANSWER 5 OF 11 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
PI US 6040498 March 21, 2000

=> d 6 pi

L8 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2002 ACS

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 9919497 | A1 | 19990422 | WO 1997-IL328 | 19971010 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| AU 9745703 | A1 | 19990503 | AU 1997-45703 | 19971010 |
| CA 2312008 | AA | 19990422 | CA 1998-2312008 | 19981008 |

```
     WO 9919498         A1   19990422       WO 1998-IL487    19981008
         W:  AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE,
             KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
             MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
             TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9894572         A1   19990503       AU 1998-94572    19981008
     EP 1021552         A1   20000726       EP 1998-947760   19981008
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO


=> d 7 pi

L8   ANSWER 7 OF 11  CAPLUS  COPYRIGHT 2002 ACS
     PATENT NO.         KIND  DATE           APPLICATION NO.  DATE
     ---------------    ----  --------       ---------------  --------
PI   WO 9907210         A1   19990218       WO 1998-US16683  19980811
         W:  AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             CZ, DE, DE, DK, DK, EE, EE, ES, FI, FI, GB, GE, GH, GM, HR, HU,
             ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
             MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
             SK, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9887799         A1   19990301       AU 1998-87799    19980811
     US 6040498         A    20000321       US 1998-132536   19980811
     EP 1037523         A1   20000927       EP 1998-939350   19980811
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2001513325      T2   20010904       JP 2000-506820   19980811


=> d 7 in

L8   ANSWER 7 OF 11  CAPLUS  COPYRIGHT 2002 ACS
IN   Stomp, Anne-Marie; Rajbhandari, Nirmala


=> d 8 ab

L8   ANSWER 8 OF 11  CAPLUS  COPYRIGHT 2002 ACS
AB   A review with 132 refs.  Four simple (bench-top) bioassays are serving
     well for the detection and fractionation monitoring of new plant antitumor
     and pesticidal agents.  These are: (1) lethality to the larvae of brine
     shrimp (Artemia salina); (2) the inhibition of crown gall tumors, induced
     by plasmid transfer and expression from Agrobacterium
     tumefaciens, on disks of potato (Solanum tuberosum) tubers; (3) the
     inhibition or stimulation of frond proliferation of duckweed (
     Lemna minor); and (4) lethality to the larvae of yellow fever
     mosquitoes (Aedes aegyptii).  Since 1984, over 320 chem. diverse bioactive
     plant components have been isolated and characterized in our lab. by using
     these methods.  Recently, bioactive compds. from the Meliaceae, Lauraceae,
     Euphorbiaceae, Laminaceae, and other plant families have been isolated,
     but our most exciting leads have been with the potent acetogenins from the
     Annonaceae; these compds. are powerful inhibitors of mitochondrial
     electron transport systems and of the NADH oxidase that is prevalent in
     the plasma membranes of tumorous cells.  The consequence is ATP depletion,
     and this is esp. toxic to multiple drug resistant tumor cells and
     pesticide resistant insects that possess ATP-dependent xenobiotic efflux
```

systems. Structural activity relationship studies (in mitochondrial preps. and against mosquito larvae) help to define the optimum structural features. This paper has presented the chem. and biol. testing results of 207 plant components recently isolated using the simple bioassays described followed by cytotoxicity testing in a panel of six human tumor cell lines.

=> d 9 ab

L8 ANSWER 9 OF 11 AGRICOLA DUPLICATE 2

=> d 9 so

L8 ANSWER 9 OF 11 AGRICOLA DUPLICATE 2
SO Current plant science and biotechnology in agriculture, 1992. Vol. 13 p. 859-873
Publisher: Dordrecht : Kluwer Academic Publishers.
ISSN: 0924-1949

=> d 10 ab

L8 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2002 ACS
AB Phytochrome-regulated expression of reporter genes attached to **Lemna** gibba phytochrome-regulated promoters was obsd. after **Agrobacterium**-mediated transformation of tobacco and biolistic transformation of **Lemna** fronds. The regulation of gene expression by phytochrome in L. gibba and Arabidopsis is reviewed.

=> s caffeine and agrobacter?
L9 5 CAFFEINE AND AGROBACTER?

=> dup rem l9
PROCESSING COMPLETED FOR L9
L10 5 DUP REM L9 (0 DUPLICATES REMOVED)

=> d 1-5 it

L10 ANSWER 1 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
IT Major Concepts
Horticulture (Agriculture); Methods and Techniques; Molecular Genetics (Biochemistry and Molecular Biophysics)
IT Chemicals & Biochemicals
DNA: molecular phylogeny, sequence data
IT Methods & Equipment
**Agrobacterium**-mediated transformation: gene transfer method
IT Miscellaneous Descriptors
genetic engineering
ORGN Super Taxa
Rhizobiaceae: Gram-Negative Aerobic Rods and Cocci, Eubacteria, Bacteria, Microorganisms; Rubiaceae: Dicotyledones, Angiospermae, Spermatophyta, Plantae
ORGN Organism Name
**Agrobacterium** (Rhizobiaceae): gene vector; Coffea arabica [coffee] (Rubiaceae); Coffea canephora (Rubiaceae)
ORGN Organism Superterms
Angiosperms; Bacteria; Dicots; Eubacteria; Microorganisms; Plants; Spermatophytes; Vascular Plants

L10 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2002 ACS
IT Gene, microbial
RL: BPR (Biological process); BSU (Biological study, unclassified); BUU

(Biological use, unclassified); BIOL (Biological study); PROC (Process);
USES (Uses)
(GUS; transgenic coffee plants via **Agrobacterium**-mediated
callus transformation)
IT Gene, plant
RL: BPR (Biological process); BSU (Biological study, unclassified); BUU
(Biological use, unclassified); BIOL (Biological study); PROC (Process);
USES (Uses)
(bar; transgenic coffee plants via **Agrobacterium**-mediated
callus transformation)
IT Plant tissue
(callus; transgenic coffee plants via **Agrobacterium**-mediated
callus transformation)
IT Gene, microbial
RL: BPR (Biological process); BSU (Biological study, unclassified); BUU
(Biological use, unclassified); BIOL (Biological study); PROC (Process);
USES (Uses)
(hpt; transgenic coffee plants via **Agrobacterium**-mediated
callus transformation)
IT Gene, microbial
RL: BPR (Biological process); BSU (Biological study, unclassified); BUU
(Biological use, unclassified); BIOL (Biological study); PROC (Process);
USES (Uses)
(nptII; transgenic coffee plants via **Agrobacterium**-mediated
callus transformation)
IT **Agrobacterium**
**Agrobacterium** tumefaciens
Coffee (Coffea)
Coffee (Coffea arabica)
Coffee (Coffea canephora)
Coffee (Coffea dewevrei)
Coffee (Coffea liberica)
(transgenic coffee plants via **Agrobacterium**-mediated callus
transformation)
IT Transgene
RL: BPR (Biological process); BSU (Biological study, unclassified); BUU
(Biological use, unclassified); BIOL (Biological study); PROC (Process);
USES (Uses)
(transgenic coffee plants via **Agrobacterium**-mediated callus
transformation)
IT 111069-93-3, Phosphinothricin acetyl transferase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(BAR gene for,; transgenic coffee plants via **Agrobacterium**
-mediated callus transformation)
IT 9001-45-0, .beta.-Glucuronidase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(GUS gene for; transgenic coffee plants via **Agrobacterium**
-mediated callus transformation)
IT 88361-67-5
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(HPT gene for; transgenic coffee plants via **Agrobacterium**
-mediated callus transformation)
IT 1404-04-2, Neomycin 6379-56-2, Hygromycin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(gene conferring resistance to; transgenic coffee plants via
**Agrobacterium**-mediated callus transformation)
IT 155215-94-4, **Caffeine** synthase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(gene for; transgenic coffee plants via **Agrobacterium**
-mediated callus transformation)
IT 53362-84-8, Neomycin phosphotransferase II
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(nptII gene for; transgenic coffee plants via **Agrobacterium**
-mediated callus transformation)
IT 35597-43-4, Bialaphos

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(resistance to, BAR gene for; transgenic coffee plants via **Agrobacterium**-mediated callus transformation)

L10 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS
IT Duckweed (Lemna gibba)
(Hurfeish; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT Antibiotic resistance
Herbicide resistance
(Lemnaceae exhibiting; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT Materials
(biochems., prodn. by lemnaceae; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT Plant tissue
(callus, plant regeneration from; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT Dicotyledon (Magnoliopsida)
Solanaceae
Tobacco
(cell suspension used in booster medium; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT Culture media
(enhancement of **Agrobacterium** virulence with; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT Regeneration, plant
(from callus; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT Metabolism, plant
(inhibitors of, use as selecting agents in growth medium; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT Plant tissue
(meristem, targeted transformation of; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT **Agrobacterium**
Duckweed (Lemna)
Genetic engineering
Lemnaceae
Spirodela
Transformation, genetic
Wolffia
(methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT Pigments, biological
(prodn. by lemnaceae; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT Alkaloids, preparation
Carbohydrates, preparation
Lipids, preparation
Proteins, general, preparation
Vitamins
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(prodn. by lemnaceae; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT Spirodela oligorrhiza
(strain 8717; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT **Agrobacterium** tumefaciens
(strains EHA105, EHA101, GVE3103, LBA4404, and C58; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)

IT Antibiotics
Herbicides
(use as selecting agents in growth medium; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT Plant tissue culture
(use in plant regeneration from callus; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT Hormones, plant
Minerals, biological studies
Organic compounds, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(used in growth medium; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT Filtration
(vacuum filtration, use in transformation; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT Plant tissue
(wound, targeted transformation of; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT 77182-82-2, BASTA
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(20, Lemnaceae with resistance to; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT 8063-07-8, Kanamycin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Lemnaceae with resistance to; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT 57-50-1, Sucrose, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(less than 1.5% soln. used in growth medium; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)
IT 58-08-2, **Caffeine**, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(used in booster medium; methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens)

L10 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2002 ACS
IT **Agrobacterium** tumefaciens
Rhizobium fredii
(cAMP receptor protein of, purifn. and characterization of)
IT Kinetics of dissociation
(of cAMP from CRP proteins of bacteria)
IT Molecular association
(of cAMP with CRP protein of bacteria, kinetics of)
IT Ribonucleic acid formation factors
RL: BIOL (Biological study)
(CAP (catabolite gene activator protein), of **Agrobacterium** tumefaciens and Rhizobium fredii, purifn. and characterization of)
IT Nucleotides, biological studies
RL: BIOL (Biological study)
(cyclic, cAMP receptor protein of bacteria inhibition by)
IT Cations
(divalent, cAMP receptor protein of **Agrobacterium** tumefaciens and Rhizobium fredii regulation by)
IT 60-92-4
RL: BIOL (Biological study)
(CRP proteins of **Agrobacterium** tumefaciens and Rhizobium fredii binding of)
IT 58-08-2, **Caffeine**, biological studies 58-55-9, Theophylline, biological studies 73-24-5D, Adenine, nucleotides
RL: BIOL (Biological study)
(cAMP receptor protein of bacteria inhibition by)

IT 58-61-7, Adenosine, biological studies 73-24-5, Adenine, biological studies
RL: BIOL (Biological study)
(cAMP receptor protein of bacteria stimulation by)

L10 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS
IT Light, ultraviolet, biological effects
(damage by mechanisms of **Agrobacterium** tumifaciens recovery from)
IT **Agrobacterium**
(tumefaciens, reactivation of)

=> ti

TI IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

<------User Break------>

=> d 1-5 ti

L10 ANSWER 1 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Biotechnological applications for the improvement of coffee (Coffea Arabica L.

L10 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2002 ACS
TI Transgenic coffee plants via **Agrobacterium**-mediated callus transformation

L10 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS
TI Methods for the genetic transformation of Lemnaceae with **Agrobacterium** tumefaciens

L10 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2002 ACS
TI Partial purification and characterization of cyclic AMP receptor protein from **Agrobacterium** tumefaciens C58 and Rhizobium fredii 191

L10 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS
TI Ultraviolet repair capabilities of **Agrobacterium** tumifaciens

=> d 3 pi

L10 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 9919497 | A1 | 19990422 | WO 1997-IL328 | 19971010 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| AU 9745703 | A1 | 19990503 | AU 1997-45703 | 19971010 |
| CA 2312008 | AA | 19990422 | CA 1998-2312008 | 19981008 |
| WO 9919498 | A1 | 19990422 | WO 1998-IL487 | 19981008 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, | | | | |

TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

| | | | | |
|---|---|---|---|---|
| AU 9894572 | A1 | 19990503 | AU 1998-94572 | 19981008 |
| EP 1021552 | A1 | 20000726 | EP 1998-947760 | 19981008 |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

=> d 4 ab

L10 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2002 ACS
AB Purifn. and characterization of cAMP receptor proteins (CRP) from A. tumefaciens and R. fredii are described. Effects of divalent cations, nucleotides, temp., and pH were detd. **Caffeine** and theophylline inhibited CRP of A. tumefaciens. Kinetics of cAMP assocn. with and dissocn. from CRP were reported. Bacterial physiol. is considered.

=> d 4 so

L10 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2002 ACS
SO Proceedings of the Malaysian Biochemical Society Conference (1989), 14th, 67-71
CODEN: PMBCDR; ISSN: 0126-9208

=> d 5 ab

L10 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS
AB A. tumefaciens possessed many of the uv repair mechanisms that are known to occur in Escherichia coli. Pos. results were obtained for photoreactivation, dark reactivation, and host-cell reactivation. Host-cell reactivation of A. tumefaciens was demonstrated by employing a lytic phage. In the presence of **caffeine**, the survival of virus after uv treatment was much lower than in the controls. Attempts to demonstrate uv reactivation of the virus were neg. It was hypothesized that host-cell reactivation and uv reactivation are accomplished, at least in part, by different enzyme systems.

=> s feeder and transform?
L11 466 FEEDER AND TRANSFORM?

=> s l11 and agrobac?
L12 38 L11 AND AGROBAC?

=> dup rem l12
PROCESSING COMPLETED FOR L12
L13 21 DUP REM L12 (17 DUPLICATES REMOVED)

=> d 1-10 ti

L13 ANSWER 1 OF 21 AGRICOLA DUPLICATE 1
TI Factors that influence **Agrobacterium** rhizogenes-mediated **transformation** of broccoli (Brassica oleracea L. var. italica).

L13 ANSWER 2 OF 21 AGRICOLA DUPLICATE 2
TI Factors affecting **Agrobacterium** tumefaciens-mediated **transformation** of peppermint.

L13 ANSWER 3 OF 21 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Factors affecting **Agrobacterium** tumefaciens-mediated **transformation** of peppermint.

L13 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 3
TI **Agrobacterium** rhizogenes-mediated **transformation** of broccoli (Brassica oleracea L. var. italica) with an antisense 1-aminocyclopropane-1-carboxylic acid oxidase gene

L13 ANSWER 5 OF 21 AGRICOLA DUPLICATE 4
TI **Agrobacterium**-mediated **transformation** of citrange: factors affecting **transformation** and regeneration.

L13 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2002 ACS
TI High plant regeneration, genetic stability of regenerants, and genetic **transformation** of herbicide resistance gene (Bar) in Chinese cabbage (Brassica campestris ssp. pekinensis)

L13 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2002 ACS
TI Preparation of transgenic plants by infection with **Agrobacterium**

L13 ANSWER 8 OF 21 AGRICOLA DUPLICATE 5
TI Genetic **transformation** of lime (Citrus aurantifolia Swing.): factors affecting **transformation** and regeneration.

L13 ANSWER 9 OF 21 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Factors influencing **Agrobacterium**-mediated **transformation** of Brassica rapa L.

L13 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 6
TI **Transformation** and foreign gene expression with plant species

=> d 7 so

L13 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2002 ACS
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF

=> d 7 pi

L13 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2002 ACS

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | JP 09252674 | A2 | 19970930 | JP 1996-70584 | 19960326 |

=> d 10 so

L13 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 6
SO U.S., 12 pp. Cont.-in-part of U.S. Ser. No. 404, 723, abandoned.
CODEN: USXXAM

=> d 10 pi

L13 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 6

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | US 5565347 | A | 19961015 | US 1993-113985 | 19930830 |

=> d 10 ab

L13 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 6
AB Plant species are produced by cocultivation **transformation** of cotyledon shoot cultures with a foreign gene followed by regeneration of

plants from **transformed** cells, thereby producing plants capable of expressing the foreign gene. Particularly, tomato shoot cultures are employed and are **transformed** employing a manipulated **Agrobacterium transformation** system, followed by regeneration of the **transformed** plant tissue into plants. Injured cotyledon tissue as a source of cells for **transformation** offers several advantages over other tissue sources, such as leaf and stem, including uniformity of tissue and a source of sterile tissue. Cotyledon tissue is preferably preincubated with medium conditioned with a plant (Nicotiana) cell **feeder** culture. Thus, a binary vector plasmid, pPMG85/87, contg. 3 chimeric genes, was introduced into a binary disarmed strain of A. tumefaciens. Two of the genes code for for neomycin phosphotransferase (APH3'II) which confers resistance to the antibiotic kanamycin; one of the genes is spliced to the octopine synthase promoter and the other to the mannopine synthase promoter. The 2 APH3'II genes were engineered into the T-DNA to allow for direct selection of **transformed** tissue. The third chimeric gene fusion contains a mutant aroA gene isolated from Salmonella typhimurium, which confers tolerance to the herbicide glyphosate, spliced to the mannopine synthase promoter. The rapid and efficient tomato **transformation** /regeneration system yielded >85% explants on kanamycin selective medium and expressing the aroA protein. Glyphosate spray expts. confirmed that the resulting tomato plants were resistant to 0175 lbs/acre glyphosate.

=> d 11-21 ti

L13 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2002 ACS
TI Hairy root culture for taxol production, using **transformed** Taxus.

L13 ANSWER 12 OF 21 AGRICOLA DUPLICATE 7
TI Re-evaluation of conditions for plant regeneration and **Agrobacterium**-mediated **transformation** from tomato (Lycopersicon esculentum).

L13 ANSWER 13 OF 21 AGRICOLA DUPLICATE 8
TI Factors influencing **transformation** frequency of tomato (Lycopersicon esculentum).

L13 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 9
TI Factors influencing **Agrobacterium** tumefaciens mediated **transformation** and expression of kanamycin resistance in pickling cucumber

L13 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 10
TI **Transformation** of Brassica napus L. (oilseed rape) using **Agrobacterium** tumefaciens and **Agrobacterium** rhizogenes - a comparison

L13 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2002 ACS
TI High efficiency **transformation** of Brassica napus using **Agrobacterium** vectors

L13 ANSWER 17 OF 21 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI GENETIC **TRANSFORMATION** OF POTATO SOLANUM-TUBEROSUM AN EFFICIENT METHOD TO OBTAIN TRANSGENIC PLANTS.

L13 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2002 ACS
TI Genetic **transformation** of potato (Solanum tuberosum): an efficient method to obtain transgenic plants

L13 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2002 ACS
TI Method and plasmid for high-efficiency **transformation** of and foreign gene expression in plants

L13 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 11
TI **Agrobacterium-transformed** tomato cells replace the hormone requirement for growth of tomato leaf protoplasts

L13 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 12
TI In vitro **transformation** of petunia cells by an improved method of cocultivation with A. tumefaciens strains

=> d 20 ab

L13 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 11
AB The abilities of 3 cloned Lycopersicon pennellii cell lines, **transformed** by an octopine strain of A. tumefaciens A6, to replace the hormonal requirement for growth of nontransformed L. esculentum leaf protoplasts was studied. By employing a new protoplast **feeder** assay system, variability in the **transformed** phenotypes of the 3 lines was detected which was not evident in any assay of callus growth. At high enough densities, all 3 lines completely replaced the auxin and cytokinin requirements for growth of nontransformed L. esculentum cells. One **transformed** line, however, replaced the hormonal requirements of nontransformed cells at a much lower cell d. than the other 2 lines. Apparently, the differing abilities of the 3 tumor lines to substitute for hormones reflect differences in the activities of the auxin and cytokinin-synthesizing systems in the individual lines. With the **feeder** cell assay, clonal heterogeneity in **transformed** phenotypes can be quant. measured to provide a new means to examine the physiol. alterations initiated by the incorporation of T-DNA into a plant cell genome. Under the conditions described, high frequency division of nontransformed L. esculentum protoplasts can be obtained in the absence of exogenously supplied hormones.

=> s spirodela and 8717
L14 1 SPIRODELA AND 8717

=> d ti

L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
TI Methods for the genetic transformation of Lemnaceae with Agrobacterium tumefaciens

=> d pi

L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
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| | CA 2312008 | AA | 19990422 | CA 1998-2312008 | 19981008 |
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    EP 1021552        A1   20000726       EP 1998-947760   19981008
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=> s 8717 and (duckweed or lemnaceae)
L15           1 8717 AND (DUCKWEED OR LEMNACEAE)

=> d ti

L15  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2002 ACS
TI   Methods for the genetic transformation of Lemnaceae with
     Agrobacterium tumefaciens


=> d pi

L15  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2002 ACS
     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
PI   WO 9919497        A1    19990422       WO 1997-IL328    19971010
        W:  AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
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 NEWS  4  Apr 09   ZDB will be removed from STN
 NEWS  5  Apr 19   US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
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 NEWS  7  Apr 22   BIOSIS Gene Names now available in TOXCENTER
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 NEWS 10  Jun 10   MEDLINE Reload
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 NEWS 12  Jul 02   FOREGE no longer contains STANDARDS file segment
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                   saved answer sets no longer valid
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 NEWS 17  Aug 08   PHARMAMarketLetter(PHARMAML) - new on STN
 NEWS 18  Aug 08   NTIS has been reloaded and enhanced
 NEWS 19  Aug 19   Aquatic Toxicity Information Retrieval (AQUIRE)
                   now available on STN
 NEWS 20  Aug 19   IFIPAT, IFICDB, and IFIUDB have been reloaded
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 NEWS 22  Aug 26   Sequence searching in REGISTRY enhanced
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 NEWS 24  Sep 16   Experimental properties added to the REGISTRY file
 NEWS 25  Sep 16   Indexing added to some pre-1967 records in CA/CAPLUS
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 NEWS 27  Oct 01   CASREACT Enriched with Reactions from 1907 to 1985
 NEWS 28  Oct 21   EVENTLINE has been reloaded
 NEWS 29  Oct 24   BEILSTEIN adds new search fields
 NEWS 30  Oct 24   Nutraceuticals International (NUTRACEUT) now available on STN
 NEWS 31  Oct 25   MEDLINE SDI run of October 8, 2002
 NEWS 32  Nov 18   DKILIT has been renamed APOLLIT
 NEWS 33  Nov 25   More calculated properties added to REGISTRY
 NEWS 34  Dec 02   TIBKAT will be removed from STN
 NEWS 35  Dec 04   CSA files on STN
 NEWS 36  Dec 17   PCTFULL now covers WP/PCT Applications from 1978 to date
 NEWS 37  Dec 17   TOXCENTER enhanced with additional content
 NEWS 38  Dec 17   Adis Clinical Trials Insight now available on STN
 NEWS 39  Dec 30   ISMEC no longer available

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               CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
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FILE 'AGRICOLA' ENTERED AT 16:46:06 ON 30 DEC 2002

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             9 STACHEL, S?/AU
             9 STACHEL S?/AU
L1           9 ((STACHEL, S?) OR (STACHEL S?))/AU

=> d 1-9 ti

L1   ANSWER 1 OF 9  AGRICOLA
TI   A nontransformable Triticum monococcum monocotyledonous culture produces
     the potent Agrobacterium vir-inducing compound ethyl ferulate.

L1   ANSWER 2 OF 9  AGRICOLA
TI   Characterization of Agrobacterium tumefaciens virulence proteins induced
     by the plant factor acetosyringone.

L1   ANSWER 3 OF 9  AGRICOLA
TI   Analysis of Agrobacterium tumefaciens virulence mutants in leaf discs.

L1   ANSWER 4 OF 9  AGRICOLA
TI   Site-specific Nick in the T-DNA border sequence as a result of
     Agrobacterium vir gene expression.

L1   ANSWER 5 OF 9  AGRICOLA
TI   Identification of the signal molecules produced by wounded plant cells
     that activate T-DNA transfer in Agrobacterium tumefaciens.

L1   ANSWER 6 OF 9  AGRICOLA
TI   A gene essential for Agrobacterium virulence is homologous to a family of
     positive regulatory loci.

L1   ANSWER 7 OF 9  AGRICOLA
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